University of Gdańsk

Subject card

Subject name and code	Hydrology - field classes, PG_00198776						
Field of study	Marine Hydrography						
Date of commencement of studies	October 2026		Academic year of realisation of subject	2026/2027			
Education level	Bachelor's studies		Subject group	Obligatory subject group in the field of study Subject group related to practical vocational preparation			
Mode of study	full-time studies		Mode of delivery	at the university			
Year of study	1		Language of instruction	Polish			
Semester of study	2		ECTS credits	1.0			
Learning profile	practical		Assessment form	credit			
Conducting unit	Department of Hydrology -> Faculty of Oceanography and Geography -> Rector						
Name and surname of lecturer (lecturers)	Subject supervisor		dr Wojciech Maślanka				
	Teachers						
Lesson types	Lesson type	Lecture	Tutorial	Laboratory	Project	Seminar	SUM
	Number of study hours	0.0	20.0	0.0	0.0	0.0	20
	E-learning hours included: 0.0						
Learning activity and number of study hours	Learning activity	Participation in didactic classes included in study plan		Participation in consultation hours	Self-study	SUM	
	Number of study hours	20		2.0	8.0	30	
Subject objectives	1. Identifying cause-and-effect relation and the way water circulates in nature. 2. The spatial differentiation and the ability to identify hydrographic objects and hydrotechnical devices in the field - field mapping. 3. The use of equipment and the correct implementation of basic hydrological measurements, the development and interpretation of measurement results. 4. To learn about the impact of natural and anthropogenic factors on the formation of the hydrosphere.						

Learning outcomes

Course outcome	Subject outcome	Method of verification
[HML3-U18] is able to work individually and in team, manage the work of the team, in particular comply with health and safety regulations and ergonomics	is able to work individually and as part of a team, organizes and directs work in a team in conformity with BHP and ergonomic principles	[SU8] observation of student's independent or team work
[HML3-U14] is able to use the applicable terminology in presenting and discussing problems related to the field of study	is able to use current terminology when presenting and developing results and discussing problems in hydrology	[SU1] oral statement/conversation/ discussion
[HML3-U03] is able to recognise natural (including geological) and anthropogenic objects and link them to the processes leading to their formation	is able to independently recognize hydrographic and anthropogenic objects based on their knowledge and is able to identify the processes leading to their formation	[SU6] demonstration of practical skills
[HML3-U02] is able to select and apply basic research techniques and tools in the field of aquatic environment research, as well as plan and carry out measurements, develop the obtained results and interpret them correctly	is able to apply appropriate methods, techniques and research tools for the study of the hydrosphere; plans and carries out measurements, correctly analyzes and interprets the achieved results;	[SU5] implementation of a problem task
[HML3-K01] is ready to correctly identify and resolve professional dilemmas, especially in the aspects of security and entrusted property	is ready to critically evaluate their knowledge and the content they receive, respects the importance of knowledge in solving cognitive and practical problems, consults experts when they have difficulty solving a problem on their own	[SK8] observation of student's independent or team work
[HML3-W04] knows and understands, at an advanced level, the issue of measurements related to the exploration of sea basins and inland waters and tools allowing to describe, interpret and present the results of measurements	knows and understands at an advanced level the issues involved in the study of the inland waters; knows the tools to describe, interpret and present the results of measurements obtained in the field	[SW3] text preparation/written work
[HML3-W02] knows and understands, at an advanced level, selected phenomena and processes occurring in the hydrosphere, atmosphere, lithosphere and biosphere, their interconnections and relations, as well as practical applications of this knowledge in professional activities related to the field of study	knows and understands at an advanced level the processes, occurrences and their interconnections in the hydrosphere, atmosphere, lithosphere and biosphere; knows the practical application of this knowledge	[SW2] presentation/project/paper/ report

Subject contents

1. Hydrographic mapping (identification of hydrographic objects).

2. Measure the flow rate by various methods.

3 Measuring the discharge of groundwater outflows.

4. Measurements of water conditions in wetlands.

5. Methods of limnological research. Stratification of lakes.

6. Measurements of basic physical and chemical characteristics of surface and groundwater.

Prerequisites and co-requisites

Background knowledge of physical geography at the high school level.

Assessment methods and criteria

Subject passing criteria	Passing threshold	Percentage of the final grade
completion of the credit work	60.0%	50.0%
field exercises: project/report	60.0%	50.0%

Recommended reading	Basic literature	Bajkiewicz-Grabowska E., 2021, Hydrologia ogólna, PWN, Warszawa. Bajkiewicz-Grabowska E., Magnuszewski Z., 2009, Przewodnik do ćwiczeń z hydrologii ogólnej, PWN, Warszawa. Gutry-Korycka M., Werner-Więckowska H., 1989, Przewodnik do hydrograficznych badań terenowych, PWN, Warszawa. Kosowska-Cezak U., Bajkiewicz-Grabowska E., 2009, Podstawy hydrometeorologii. PWN, Warszawa. Pociask-Karteczka J. (red), 2003, Zlewnia. Właściwości i procesy, UJ IGiGP, Kraków. Tarka R., 1999, hydrologia - Przewodnik do ćwiczeń laboratoryjnych i terenowych, Uniwersytet Wrocławski, Wrocław.GIS-3, Mapa Hydrograficzna Polski w skali 1:50 000, Wytyczne techniczne, 2005, GUGiK, Warszawa. Drwal J., Gołębiewski R., Lange W., 1975, Dorzecze Borucinki jako przykład zlewni reprezentatywnej Pojezierza Kaszubskiego, Zesz. Nauk. Wydz. BiNOZ UG, Geografia 3. Borowiak D. (red.), 2007, Jeziora Kaszubskiego Parku Krajobrazowego, Ser. Bad. Limn. 5, Wydaw. KLUG, Gdańsk. Lange W. (red.), 2005, Jeziora górnej Raduni i jej zlewnia w badaniach z udziałem Stacji Limnologicznej w Borucinie, Ser. Bad. Limnol. 3, Wydaw. KLUG
	Supplementary literature	Byczkowski A., 1999, Hydrologia, t. I i II, Wydaw. SGGW, Warszawa. Dynowska I., 1971 Typy reżimów rzecznych w Polsce, Prace IG UJ, Kraków Lange W. (red.), 1993, Metody badań fizycznolimnologicznych, Wyd. UG, Gdańsk. Pociask - Karteczka J., (red.), 2003, Zlewnia, właściwości i procesy, UJ IGiGP, Kraków. Mapa Hydrograficzna Polski skala 1:50 000 w formie analogowej i numerycznej.
	eResources addresses	
Example issues/ example questions/ tasks being completed	Measurements of flow rates by various methods in selected watercourses - development and interpretation of results. Measurements on a lake - development and interpretation of results. Field mapping - development and interpretation of results.	
Work placement	Not applicable	

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